

**FACT SHEET FOR STATE WASTE DISCHARGE PERMIT ST 6212**  
**QUANTUMCLEAN**

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## **INTRODUCTION**

This fact sheet is a companion document to the draft State Waste Discharge Permit No. ST 6212. The Department of Ecology (Ecology) is proposing to issue this permit, which will allow discharge of wastewater to the city of Washougal. This fact sheet explains the nature of the proposed discharge, Ecology's decisions on limiting the pollutants in the wastewater, and the regulatory and technical bases for those decisions.

Washington State law (Revised Code of Washington [RCW] 90.48.080 and 90.48.160) requires that a permit be issued before discharge of wastewater to waters of the state is allowed. This statute includes commercial or industrial discharges to sewerage systems operated by municipalities or public entities which discharge into public waters of the state. Regulations adopted by the state include procedures for issuing permits and establish requirements which are to be included in the permit (Chapter 173-216 Washington Administrative Code [WAC]).

This fact sheet and draft permit are available for review by interested persons as described in Appendix A—Public Involvement Information.

The fact sheet and draft permit have been reviewed by QuantumClean. Errors and omissions identified in these reviews have been corrected before going to public notice. After the public comment period has closed, Ecology will summarize the substantive comments and the response to each comment. The summary and response to comments will become part of the file on the permit and parties submitting comments will receive a copy of Ecology's response. The fact sheet will not be revised. Changes to the permit will be addressed in Appendix C—Response to Comments.

<b>GENERAL INFORMATION</b>	
Applicant	QuantumClean
Facility Name and Address	QuantumClean – Washington 3333 Index Road Washougal, Washington 98671
Type of Facility:	QuantumClean is an Outsource parts cleaning service company for the semiconductor
Facility Discharge Location	Latitude: 45° 34' 05" N Longitude: 122° 20' 08" W.
Treatment Plant Receiving Discharge	The City of Washougal Public Works Department 2201 C Street Washougal, Washington 98671
Contact at Facility	Christopher Tracey: Telephone #:360-335-8177
Responsible Official	Name: Christopher Tracey Title: Northern Operations Manager Address: 3333 Index Road Washougal, Washington 98671 Telephone #: 360-335-8177 FAX #: 360-335-1287

**BACKGROUND INFORMATION**

*DESCRIPTION OF THE FACILITY*

HISTORY

QuantumClean (QC) is located in the City of Washougal (the City) in Clark County. Previously this business operated under the name of EnviroClean Technology (ECT), a subsidiary of the Saint Gobain Company (WA0039527). QC bought the ECT operation in early 2006. Besides the ownership change of this facility, the major change in this new operation is that it now discharges into the City's sewer system. QuantumClean operates its facility in essentially the same manner as Saint Gobain had since 1999 (Figure 1).

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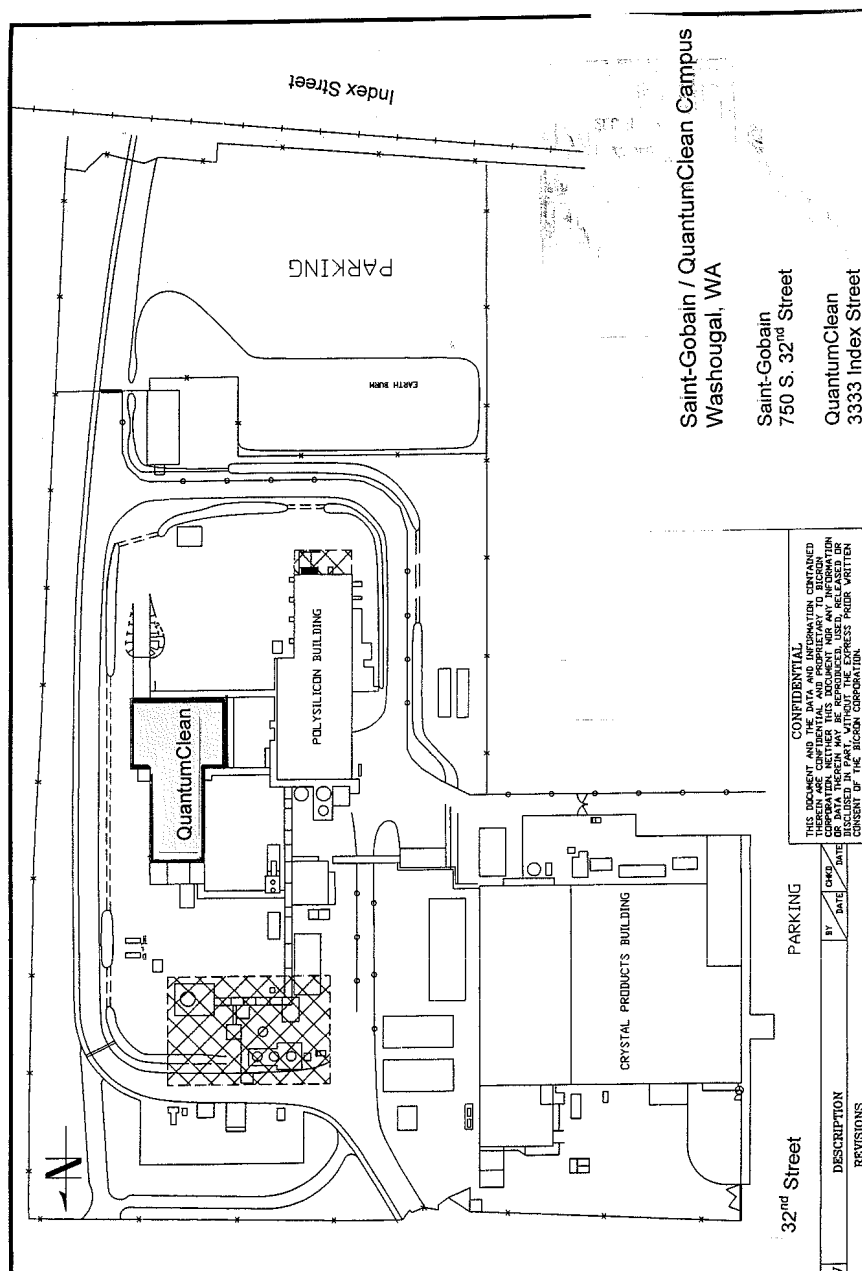


Figure 1

INDUSTRIAL PROCESSES

QC is an outsource parts cleaning service company for the semiconductor industry. QC specializes in the refurbishment and ultra-clean cleaning of used and new semiconductor parts. The Standard Industrial Classification (SIC) Code for all activities is 7699. QC utilizes chemical solutions, abrasive dry and wet application and ultra clean rinsing processes. The chemical cleaning solution and rinse water from the operation requires a pretreatment process to neutralize these waste-streams prior to discharging them to the City's wastewater treatment plant. QC uses minimal amounts of acetone and isopropyl alcohol in spray applications but it does not discharge these solvents into the waste streams.

## TREATMENT PROCESSES

The proposed pretreatment process is a simple acid/base neutralization process of inorganic chemicals wastewater solutions. The facility designed the pretreatment process to neutralize pH, precipitate any trace metal ions and separate these solids from the neutralized effluent prior to discharge to the sewer system (Figure 2). The pretreatment process is installed and its connection to the city's sanitary sewer system is scheduled to be completed by July 1, 2008.

QuantumClean Pretreatment Process Flow,  
with Typical and Maximum Volumes

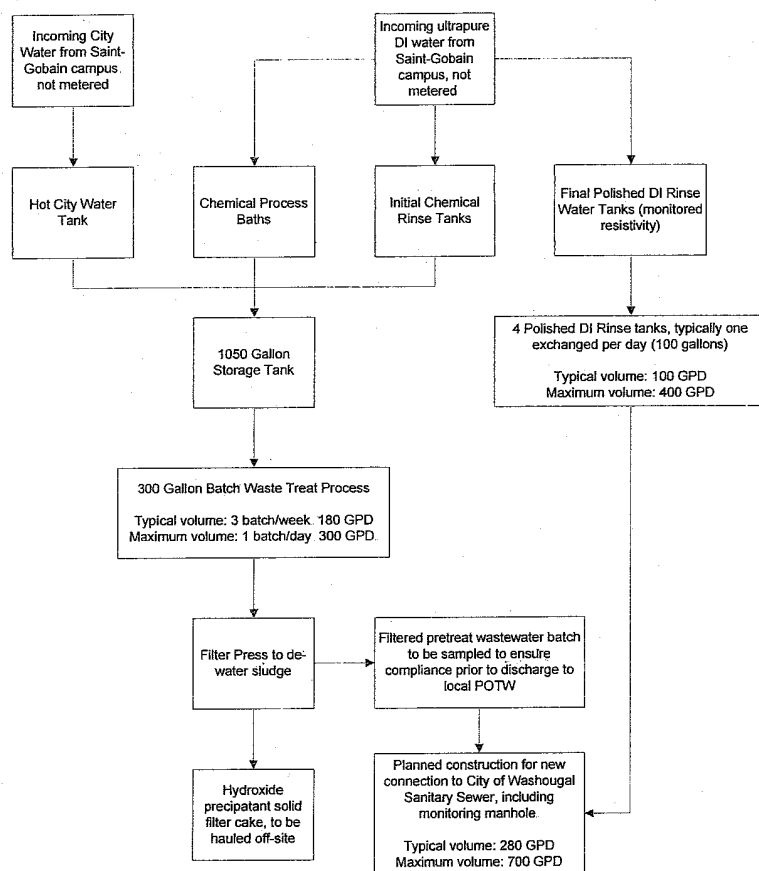


Figure 2

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*PERMIT STATUS*

This is a new permit. On April 7, 2008, QC completed an application process for a state waste discharge to discharge their process wastewater to the City's wastewater treatment plant.

*WASTEWATER CHARACTERIZATION*

The predicted concentration of pollutants in the discharge was reported in the state waste discharge permit application and in the engineering report. The proposed wastewater discharge is characterized for the following parameters. This wastewater characterization is based on the company's similar operations in the other parts of the country.

**Table 2: Wastewater characterization submitted with the application dated April 7, 2008**

<b>Parameter</b>	<b>Concentration</b>
pH (S.U)	7-10.5
Arsenic (mg/L)	<0.4
Cadmium (mg/L)	<0.04
Chromium (mg/L)	1.3
Copper (mg/L)	0.109
Fluoride (mg/L)	8.30
Lead (mg/L)	2.180
Mercury	<0.30
Selenium (mg/L)	<0.60
Silver (mg/L)	0.03
Zinc (mg/L)	<0.20

*SEPA COMPLIANCE*

The QC permit essentially continues the requirements of the ECT permit (WA0039527). This is the case because the facility has made no major changes to the production process. According to state law, there is an exemption from SEPA under RCW 43-21C.0383.

**PROPOSED PERMIT LIMITATIONS**

State regulations require that limitations set forth in a waste discharge permit must be based on the technology available to treat the pollutants (technology-based) or be based on the effects of the pollutants to the POTW (local limits). Wastewater must be treated using all known, available, reasonable methods of prevention, control, and treatment (AKART) and not interfere with the operation of the POTW.

The facility determined the minimum requirements to demonstrate compliance with the AKART standard and specific design criteria in the engineering report (QuantumClean – Washougal Wet Production Process Pretreatment Engineering Report) April 7, 2008.

The more stringent of the technology-based limits or local limits-based are applied to each of the parameters of concern. Each of these types of limits is described in more detail below.

TECHNOLOGY-BASED EFFLUENT LIMITATIONS

All waste discharge permits issued by Ecology must specify conditions requiring available and reasonable methods of prevention, control, and treatment of discharges to waters of the state (WAC 173-216-110). Existing federal categorical limitations for this facility are found under 40 CFR (Code of Federal Regulations) Part 433.17, pretreatment standards for new sources (PSNS) for metal finishing point source category. The following permit limitations are necessary to satisfy the requirement for AKART:

**Table 3: Pretreatment standards for new sources (PSNS) for metal finishing point source category**

Parameter	Maximum for any 1 day	Monthly average shall not exceed
	Milligrams per liter (mg/L)	
Cadmium (T)	0.11	0.07
Chromium (T)	2.77	1.71
Copper (T)	3.38	2.07
Lead (T)	0.69	0.43
Nickel (T)	3.98	2.38
Silver (T)	0.43	0.24
Zinc (T)	2.61	1.48
Cyanide (T)	1.20	0.65
TTO	2.13	

The term “TTO” shall mean total toxic organics, which is the summation of all quantifiable values greater than 0.01 milligrams per liter for the following toxic organics:

1,1-Dichloroethane	3,3-Dichlorobenzidine
1,1,2-Trichloroethane	,1-Dichloroethylene1
1,1,2,2-Tetrachloroethane	1,2-Trans-dichloroethylene
Chloroethane	2,4-Dichlorophenol
Bis (2-chloroethyl) ether	1,2-Dichloropropane
2-Chloroethyl vinyl ether (mixed)	1,3-Dichloropropylene (1,3-dichloropropene)
2-Chloronaphthalene	2,4-Dimethylphenol
2,4,6-Trichlorophenol	2,4-Dinitrotoluene
Parachlorometa cresol	2,6-Dinitrotoluene
Chloroform (trichloromethane)	1,2-Diphenylhydrazine
2-Chlorophenol	Ethylbenzene
1,2-Dichlorobenzene	Fluoranthene
1,3-Dichlorobenzene	4-Chlorophenyl phenyl ether
1,4-Dichlorobenzene	-Bromophenyl phenyl ether4
Bis (2-chloroisopropyl) ether	Bis (2-chloroethoxy) methane
Methylene chloride (dichloromethane)	Methyl chloride (chloromethane)
Methyl bromide (bromomethane)	Bromoform (tribromomethane)
Dichlorobromomethane	Chlorodibromomethane
Hexachlorobutadiene	Hexachlorocyclopentadiene



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Isophorone	Naphthalene
Nitrobenzene	2-Nitrophenol
4-Nitrophenol	2,4-Dinitrophenol
4,6-Dinitro-o-cresol	N-nitrosodimethylamine
N-nitrosodiphenylamine	N-nitrosodi-n-propylamine
Pentachlorophenol	Phenol
Bis (2-ethylhexyl) phthalate	Butyl benzyl phthalate
Di-n-butyl phthalate	Di-n-octyl phthalate
Diethyl phthalate	Dimethyl phthalate
1,2-Benzanthracene	benzo(a)anthracene)
Benzo(a)pyrene (3,4-benzopyrene)	3,4-Benzofluoranthene (benzo(b)fluoranthene)
11,12-Benzofluoranthene (benzo(k)fluoranthene)	Chrysene
Acenaphthylene	Anthracene
1,12-Benzoperylene (benzo(ghi)perylene)	Fluorene
Phenanthrene	1,2,5,6-Dibenzanthracene (dibenzo(a,h)anthracene)
Indeno(1,2,3-cd) pyrene (2,3-o-phenylene pyrene)	Pyrene
Tetrachloroethylene	Toluene
Trichloroethylene	Vinyl chloride (chloroethylene)
Aldrin	Dieldrin
Chlordane (technical mixture and metabolites)	4,4-DDT
4,4-DDE (p,p-DDX)	4,4-DDD (p,p-TDE)
Alpha-endosulfan	Beta-endosulfan
Endosulfan sulfate	Endrin
Endrin aldehyde	Heptachlor
Heptachlor epoxide	(BHC-hexachloro-cyclohexane)
Alpha-BHC	Beta-BHC
Gamma-BHC	Delta-BHC
(PCB-polychlorinated biphenyls)	PCB-1242 (Arochlor 1242)
PCB-1254 (Arochlor 1254)	PCB-1221 (Arochlor 1221)
PCB-1232 (Arochlor 1232)	PCB-1248 (Arochlor 1248)
PCB-1260 (Arochlor 1260)	PCB-1016 (Arochlor 1016)
Toxaphene	2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)

The TTO technology-based limit of 2.13 mg/L is waived provided that (1) the annual sampling shows the facility is discharging less than 2.13 mg/L TTO, (2) and the facility implements a solvent management plan, and (3) certify quarterly that there is no “dumping” of concentrated solvents to the sanitary or storm sewer. According to the federal code 469.13, QC must submit the following statement in lieu of TTO monitoring.

*"Based on my inquiry of the person or persons directly responsible for managing compliance with the pretreatment standard for TTO, I certify that, to the best of my knowledge and belief, no dumping of concentrated toxic organics into the wastewater has occurred since filing the last discharge monitoring report. I further certify that this facility is implementing the solvent management plan submitted to Ecology."*

**EFFLUENT LIMITATIONS BASED ON LOCAL LIMITS**

To protect the City’s wastewater treatment plant from pass-through, interference, concentrations of toxic chemicals that would impair beneficial or designated uses of sludge, or potentially hazardous exposure

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levels, limitations for certain parameters are necessary. These limitations are based on local limits established by the City. The City's Municipal Code states that the following pollutant limits are established to protect against pass through and interference. No person shall discharge wastewater containing in excess of the following daily maximum allowable discharge limits:

**Table 4: The city of Washougal local limits**

<b>Parameter</b>	<b>Limits (maximum for any 1 day)</b>
Arsenic (mg/L)	0.08
Cadmium (mg/L)	0.05
Chromium (mg/L)	1.3
Copper (mg/L)	1.5
Lead (mg/L)	0.40
Mercury (mg/L)	0.02
Molybdenum (mg/L)	0.15
Nickel (mg/L)	0.95
Selenium (mg/L)	0.07
Silver (mg/L)	0.4
Zinc (mg/L)	3
Oil and Grease (total of petroleum and vegetable based)	100
Total Suspended Solids (TSS) (mg/L)	300

*PROPOSED PERMIT LIMITS*

The proposed permit limits are derived from Table 3 and Table 4 of this fact sheet.

**Table 5: The city of Washougal and PSNS combined limits**

<b>Parameter</b>	<b>Units</b>	<b>Maximum for any 1 day</b>	<b>Monthly average shall not exceed</b>
Arsenic	mg/L	0.08	
Cadmium (T)	mg/L	0.05	
Chromium (T)	mg/L	1.3	
Copper (T)	mg/L	1.5	
Lead (T)	mg/L	0.40	
Nickel (T)	mg/L	0.95	

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Silver (T)	mg/L	0.40	
Zinc (T)	mg/L	2.61	1.48
Cyanide (T)	mg/L	1.20	0.65
TTO	mg/L	2.13	
Oil and Grease	mg/L		100
Total Suspended Solids	mg/L		300

**MONITORING REQUIREMENTS**

Monitoring, recording, and reporting are specified to verify that the treatment process is functioning correctly, and that effluent limitations are being achieved (WAC 173-216-110).

The monitoring schedule is detailed in the proposed permit under Condition S2. Specified monitoring frequencies take into account the quantity and variability of the discharge, the treatment method, past compliance, significance of pollutants, and cost of monitoring.

**OTHER PERMIT CONDITIONS**

*REPORTING AND RECORDKEEPING*

The conditions of S3. are based on the authority to specify any appropriate reporting and recordkeeping requirements to prevent and control waste discharges (WAC 173-216-110 and 40 CFR 403.12 (e),(g), and (h)).

*OPERATIONS AND MAINTENANCE*

The proposed permit contains condition S4. as authorized under WAC 173-240-150 and WAC 173-216-110 . It is included to ensure proper operation and regular maintenance of equipment, and to ensure that adequate safeguards are taken so that constructed facilities are used to their optimum potential in terms of pollutant capture and treatment.

*PROHIBITED DISCHARGES*

Certain pollutants are prohibited from being discharged to the POTW. These include substances which cause pass-through or interference, pollutants which may cause damage to the POTW or harm to the POTW workers (Chapter 173-216 WAC) and the discharge of designated dangerous wastes not authorized by this permit (Chapter 173-303 WAC).

*DILUTION PROHIBITED*

The facility is prohibited from diluting its effluent as a partial or complete substitute for adequate treatment to achieve compliance with permit limitations.

*NON-ROUTINE AND UNANTICIPATED DISCHARGES*

Occasionally, this facility may generate wastewater which is not characterized in their permit application because it is not a routine discharge and was not anticipated at the time of application. These typically are waters used to pressure test storage tanks or fire water systems or leaks from drinking water systems. These are typically clean waste waters but may be contaminated with pollutants. The permit contains an

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authorization for non-routine and unanticipated discharges. The permit requires a characterization of these waste waters for pollutants and examination of the opportunities for reuse. Depending on the nature and extent of pollutants in this wastewater and opportunities for reuse, Ecology may authorize a direct discharge to the municipality, require the wastewater to be placed through the facilities wastewater treatment process or require the water to be reused.

*SPILL PLAN*

Ecology has determined that the facility stores a quantity of chemicals that have the potential to cause water pollution if accidentally released. Ecology has the authority to require the facility to develop best management plans to prevent this accidental release under section 402(a)(1) of the Federal Water Pollution Control Act (FWPCA) and RCW 90.48.080.

The proposed permit requires QuantumClean to develop and implement a plan for preventing the accidental release of pollutants to state waters and for minimizing damages if such a spill occurs.

*SLUG DISCHARGE CONTROL PLAN*

Ecology has determined that the facility has the potential for a batch discharge or a spill that could adversely effect the POTW therefore a slug discharge control plan is required (40 CFR 403.8 (f)).

*GENERAL CONDITIONS*

General Conditions are based directly on state laws and regulations and have been standardized for all industrial waste discharge to POTW permits issued by Ecology.

Condition G1. requires responsible officials or their designated representatives to sign submittals to Ecology.

Condition G2. requires the Permittee to allow Ecology to access the treatment system, production facility, and records related to the permit.

Condition G3. specifies conditions for modifying, suspending or terminating the permit.

Condition G4. requires the Permittee to apply to Ecology prior to increasing or varying the discharge from the levels stated in the permit application.

Condition G5. requires the Permittee to construct, modify, and operate the permitted facility in accordance with approved engineering documents.

Condition G6. prohibits the Permittee from using the permit as a basis for violating any laws, statutes or regulations.

Conditions G7. relates to permit transfer.

Conditions G8. requires the Permittee to control production or wastewater discharge in order to maintain compliance with the permit.

Condition G9. prohibits the reintroduction of removed pollutants into the effluent stream for discharge.

Condition G10. requires the payment of permit fees.

Condition G11. describes the penalties for violating permit conditions.

### **PUBLIC NOTIFICATION OF NONCOMPLIANCE**

A list of all industrial users which were in significant noncompliance with Pretreatment Standards or Requirements during any of the previous four quarters may be annually published by Ecology in a local newspaper. Accordingly, the facility is apprised that noncompliance with this permit may result in publication of the noncompliance.

### **RECOMMENDATION FOR PERMIT ISSUANCE**

This proposed permit meets all statutory requirements for authorizing a wastewater discharge, including those limitations and conditions believed necessary to control toxics. Ecology proposes that the permit be issued for five years.

### **REFERENCES FOR TEXT AND APPENDICES**

Washington State Department of Ecology.

Laws and Regulations( <http://www.ecy.wa.gov/laws-rules/index.html> )

Permit and Wastewater Related Information  
(<http://www.ecy.wa.gov/programs/wq/wastewater/index.html>)

## APPENDICES

### APPENDIX A—PUBLIC INVOLVEMENT INFORMATION

Ecology has tentatively determined to reissue a permit to the applicant listed on page 1 of this fact sheet. The permit contains conditions and effluent limitations which are described in the rest of this fact sheet.

Public notice of application was published on June 16, 2008, and June 23, 2008, in the *Columbian* to inform the public that an application had been submitted and to invite comment on the reissuance of this permit.

Ecology will publish a Public Notice of Draft on August 26, 2008, in the *Columbian* to inform the public that a draft permit and fact sheet are available for review. Interested persons are invited to submit written comments regarding the draft permit. The draft permit, fact sheet, and related documents are available for inspection and copying between the hours of 8:00 a.m. and 5:00 p.m. weekdays, by appointment, at the regional office listed below. Written comments should be mailed to:

Industrial Unit Permit Coordinator  
Department of Ecology  
Southwest Regional Office  
P.O.Box 47775  
Olympia, WA 98504-7775

Any interested party may comment on the draft permit or request a public hearing on this draft permit within the 30 day comment period to the address above. The request for a hearing shall indicate the interest of the party and reasons why the hearing is warranted. Ecology will hold a hearing if it determines there is a significant public interest in the draft permit (WAC 173-216-100). Public notice regarding any hearing will be circulated at least 30 days in advance of the hearing. People expressing an interest in this permit will be mailed an individual notice of hearing.

Comments should reference specific text followed by proposed modification or concern when possible. Comments may address technical issues, accuracy and completeness of information, the scope of the facility's proposed coverage, adequacy of environmental protection, permit conditions, or any other concern that would result from issuance of this permit.

Ecology will consider all comments received within 30 days from the date of public notice of draft indicated above, in formulating a final determination to issue, revise, or deny the permit. Ecology's response to all significant comments is available upon request and will be mailed directly to people expressing an interest in this permit.

Further information may be obtained from Ecology by telephone, 360-407-6280, or by writing to the address listed above.

This permit was written by Aziz Mahar, P.E.

## APPENDIX B—GLOSSARY

**AKART** – The acronym for “all known, available, and reasonable methods of prevention, control and treatment.” AKART must be applied to all wastes and contaminants prior to entry into waters of the state in accordance with RCW 90.48.010 and 520, WAC 173-200-030(2)(c)(ii), and WAC 173-216-110(1)(a).

**Alternate Point of Compliance** – An alternative location in the ground water from the point of compliance where compliance with the ground water standards is measured. It may be established in the ground water at locations some distance from the discharge source, up to, but not exceeding the property boundary and is determined on a site specific basis following an AKART analysis. An “early warning value” must be used when an alternate point is established. An alternate point of compliance must be determined and approved in accordance with WAC 173-200-060(2).

**Ammonia** – Ammonia is produced by the breakdown of nitrogenous materials in wastewater. Ammonia is toxic to aquatic organisms, exerts an oxygen demand, and contributes to eutrophication. It also increases the amount of chlorine needed to disinfect wastewater.

**Average Monthly Discharge Limitation** – The average of the measured values obtained over a calendar month’s time.

**AKART** – This acronym is defined as: All known, available and reasonable methods of prevention, control, and treatment. AKART is a technology-based approach to limiting pollutants from wastewater discharges which requires an engineering judgment and an economic judgment.

**Background water quality** – The concentrations of chemical, physical, biological or radiological constituents or other characteristics in or of ground water at a particular point in time upgradient of an activity that has not been affected by that activity, [WAC 173-200-020(3)]. Background water quality for any parameter is statistically defined as the 95 percent upper tolerance interval with a 95 percent confidence based on at least eight hydraulically upgradient water quality samples. The eight samples are collected over a period of at least one year, with no more than one sample collected during any month in a single calendar year.

**Best Management Practices (BMPs)** – Schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the pollution of waters of the State. BMPs include treatment systems, operating procedures, and practices to control: plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. BMPs may be further categorized as operational, source control, erosion and sediment control, and treatment BMPs.

**BOD<sub>5</sub>** – Determining the Biochemical Oxygen Demand (BOD<sub>5</sub>) of an effluent is an indirect way of measuring the quantity of organic material present in an effluent that is utilized by bacteria. The BOD<sub>5</sub> is used in modeling to measure the reduction of dissolved oxygen in a receiving water after effluent is discharged. Stress caused by reduced dissolved oxygen levels makes organisms less competitive and less able to sustain their species in the aquatic environment. Although BOD is not a specific compound, it is defined as a conventional pollutant under the federal Clean Water Act.

**Bypass** – The intentional diversion of waste streams from any portion of the collection or treatment facility.

**Categorical Pretreatment Standards** – National pretreatment standards specifying quantities or concentrations of pollutants or pollutant properties which may be discharged to a POTW by existing or new industrial users in specific industrial subcategories.

**Compliance Inspection - Without Sampling** – A site visit for the purpose of determining the compliance of a facility with the terms and conditions of its permit or with applicable statutes and regulations.

**Compliance Inspection - With Sampling** – A site visit to accomplish the purpose of a Compliance Inspection - Without Sampling and as a minimum, sampling and analysis for all parameters with limits in the permit to ascertain compliance with those limits; and, for municipal facilities, sampling of influent to ascertain compliance with the 85 percent removal requirement. Additional sampling may be conducted.

**Composite Sample** – A mixture of grab samples collected at the same sampling point at different times, formed either by continuous sampling or by mixing discrete samples. May be “time-composite”(collected at constant time intervals) or “flow-proportional” (collected either as a constant sample volume at time intervals proportional to stream flow, or collected by increasing the volume of each aliquot as the flow increased while maintaining a constant time interval between the aliquots.

**Construction Activity** – Clearing, grading, excavation and any other activity which disturbs the surface of the land. Such activities may include road building, construction of residential houses, office buildings, or industrial buildings, and demolition activity.

**Continuous Monitoring** – Uninterrupted, unless otherwise noted in the permit.

**Early Warning Value** – The concentration of a pollutant set in accordance with WAC 173-200-070 that is a percentage of an enforcement limit. It may be established in the effluent, ground water, surface water, the vadose zone or within the treatment process. This value acts as a trigger to detect and respond to increasing contaminant concentrations prior to the degradation of a beneficial use.

**Enforcement limit** – The concentration assigned to a contaminant in the ground water at the point of compliance for the purpose of regulation, [WAC 173-200-020(11)]. This limit assures that a ground water criterion will not be exceeded and that background water quality will be protected.

**Engineering Report** – A document, signed by a professional licensed engineer, which thoroughly examines the engineering and administrative aspects of a particular domestic or industrial wastewater facility. The report shall contain the appropriate information required in WAC 173-240-060 or 173-240-130.

**Ground water** – Water in a saturated zone or stratum beneath the surface of land or below a surface water body.

**Grab Sample** – A single sample or measurement taken at a specific time or over as short period of time as is feasible.

**Industrial User** – A discharger of wastewater to the sanitary sewer which is not sanitary wastewater or is not equivalent to sanitary wastewater in character.

**Industrial Wastewater** – Water or liquid-carried waste from industrial or commercial processes, as distinct from domestic wastewater. These wastes may result from any process or activity of industry, manufacture, trade or business, from the development of any natural resource, or from animal operations such as feed lots, poultry houses, or dairies. The term includes contaminated storm water and, also, leachate from solid waste facilities.

**Interference** – A discharge which, alone or in conjunction with a discharge or discharges from other sources, both:

Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and



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Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to subtitle D of the SWDA), sludge regulations appearing in 40 CFR Part 507, the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

**Local Limits** – Specific prohibitions or limits on pollutants or pollutant parameters developed by a POTW.

**Maximum Daily Discharge Limitation** – The highest allowable daily discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. The daily discharge is calculated as the average measurement of the pollutant over the day.

**Method Detection Level (MDL)** – The minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is above zero and is determined from analysis of a sample in a given matrix containing the analyte.

**Pass-through** – A discharge which exits the POTW into waters of the—State in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation), or which is a cause of a violation of State water quality standards.

**pH** – The pH of a liquid measures its acidity or alkalinity. A pH of 7.0 is defined as neutral, and large variations above or below this value are considered harmful to most aquatic life.

**Point of Compliance** – The location in the ground water where the enforcement limit shall not be exceeded and a facility must be in compliance with the Ground Water Quality Standards. It is determined on a site specific basis and approved or designated by Ecology. It should be located in the ground water as near and directly downgradient from the pollutant source as technically, hydrogeologically, and geographically feasible, unless an alternative point of compliance is approved.

**Potential Significant Industrial User** – A potential significant industrial user is defined as an Industrial User which does not meet the criteria for a Significant Industrial User, but which discharges wastewater meeting one or more of the following criteria:

- a. Exceeds 0.5 percent of treatment plant design capacity criteria and discharges <25,000 gallons per day or;
- b. Is a member of a group of similar industrial users which, taken together, have the potential to cause pass through or interference at the POTW (e.g. facilities which develop photographic film or paper, and car washes).

Ecology may determine that a discharger initially classified as a potential significant industrial user should be managed as a significant industrial user.

**Quantitation Level (QL)** – A calculated value five times the MDL (method detection level).

**Significant Industrial User (SIU)** –

- 1) All industrial users subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N and;

- 2) Any other industrial user that: discharges an average of 25,000 gallons per day or more of process wastewater to the POTW (excluding sanitary, noncontact cooling, and boiler blow-down wastewater); contributes a process wastestream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or is designated as such by the Control Authority\* on the basis that the industrial user has a reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement (in accordance with 40 CFR 403.8(f)(6)).

Upon finding that the industrial user meeting the criteria in paragraph 2, above, has no reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement, the Control Authority\* may at any time, on its own initiative or in response to a petition received from an industrial user or POTW, and in accordance with 40 CFR 403.8(f)(6), determine that such industrial user is not a significant industrial user.

\*The term "Control Authority" refers to the Washington State Department of Ecology in the case of non-delegated POTWs or to the POTW in the case of delegated POTWs.

**Slug Discharge** – Any discharge of a non-routine, episodic nature, including but not limited to an accidental spill or a non-customary batch discharge to the POTW. This may include any pollutant released at a flow rate which may cause interference with the POTW.

**Soluble BOD<sub>5</sub>** – Determining the soluble fraction of Biochemical Oxygen Demand of an effluent is an indirect way of measuring the quantity of soluble organic material present in an effluent that is utilized by bacteria. Although the soluble BOD test is not specifically described in Standard Methods, filtering the raw sample through at least a 1.2 um filter prior to running the standard BOD<sub>5</sub> test is sufficient to remove the particulate organic fraction.

**State Waters** – Lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and watercourses within the jurisdiction of the state of Washington.

**Stormwater** – That portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, and other features of a storm water drainage system into a defined surface water body, or a constructed infiltration facility.

**Technology-based Effluent Limit** – A permit limit that is based on the ability of a treatment method to reduce the pollutant.

**Total Coliform Bacteria** – A microbiological test which detects and enumerates the total coliform group of bacteria in water samples.

**Total Dissolved Solids** – That portion of total solids in water or wastewater that passes through a specific filter.

**Total Suspended Solids (TSS)** – Total suspended solids is the particulate material in an effluent. Large quantities of TSS discharged to a receiving water may result in solids accumulation. Apart from any toxic effects attributable to substances leached out by water, suspended solids may kill fish, shellfish, and other aquatic organisms by causing abrasive injuries and by clogging the gills and respiratory passages of various aquatic fauna. Indirectly, suspended solids can screen out light and can promote and maintain the development of noxious conditions through oxygen depletion.

**Water Quality-based Effluent Limit** – A limit on the concentration of an effluent parameter that is intended to prevent the concentration of that parameter from exceeding its water quality criterion after it is discharged into a receiving water.

***APPENDIX C—RESPONSE TO COMMENTS***

No comments were received by Ecology.